ABSTRACT OF THE DISCLOSURE

Methods, a system and software for simulating the operation of a data processing apparatus to determine timing information of data transfers are provided. The data processing apparatus comprises a number of master logic units and slave logic units coupled via a bus, the data processing apparatus is operable to perform the data transfers between the master logic units and the slave logic units over the bus. One method comprises the steps of: generating anticipated timing information for each successive data transfer over the bus by assuming that each successive data transfer can occur with exclusive access to the bus; determining whether the anticipated timing information indicates that two or more concurrent data transfers would occur on the bus; and in the event that the anticipated timing information indicates that two or more concurrent data transfers would occur on the bus, generating revised timing information for those data transfers, the revised timing information being generated using bus status information until those data transfers have been completed. Assuming that each data transfer can occur with exclusive access to the bus significantly decreases the complexity when generating the anticipated timing information for each data transfer. Because the majority of the data transfers will in fact occur under these conditions, the majority of the anticipated timing information will be accurate. Should the anticipated timing information indicate that more than one data transfer will occur of the bus at the same time then revised timing information can then be generated.